CLAIMS AFTER PRELIMINARY AMENDMENT OZ 51193

1. A dividing wall column divided in the middle region into a feed section and an offtake section by a dividing wall and having as segments

a) an upper column region,

b) an enrichment section of the feed section,

c) a stripping section of the feed section,

d) an upper part of the offtake section,

e) a lower part of the offtake section,

f) an intermediate region of the feed section,

g) an intermediate region of the offtake section

and

h) a lower column region,

where the dividing wall is located vertically between the segments b) and d) and between the segments c) and e) , the segments b) , d) , c) and e) have separation-active internals and the cross-sectional area A_b of the segment b)) is at least 10% smaller than the cross-sectional area A_d of segment d) , and the cross-sectional area A_c of the segment c) is at least 10% greater than the cross-sectional area A_e of segment e).

2. A dividing wall column as claimed in claim 1, wherein the cross-sectional area A_b of the segment b) is at least 40%, preferably at least 60%, smaller than the cross-sectional area A_d of segment d) .

3. A dividing wall column as claimed in claim 1, wherein the cross-sectional area A_c of

the segment c) is at least 40%, preferably at least 60%, greater than the cross-sectional area of segment e) .

4. A dividing wall column as claimed in claim 1, wherein the dividing wall is arranged obliquely between the segments f) and g) and forms an angle of from 25 to 75°, preferably from 55 to 65°, to the horizontal.

5. A dividing wall column as claimed in claim 1, wherein the operating pressure P is in the range from 0.0005 to 10 bar and the calculated ratios of the cross-sectional areas A'_b/A'_d and A'_c/A'_e are given by the following relationships

$$\frac{A'_b}{A'_d} = \left(\frac{m_{s,b}}{m_{s,d}}\right) \times \left(\frac{m_{i,b}}{m_{i,d}}\right)^C$$

$$\frac{A'_c}{A'_e} = \left(\frac{m_{s,c}}{m_{s,e}}\right) \times \left(\frac{m_{i,c}}{m_{i,e}}\right)^C$$

where A'_b, A'_d, A'_c,A_e are the cross-sectional areas of the segments b,d,c,e provided for the calculation; $m_{s,b}$, $m_{s,d}$, $m_{s,c}$, $m_{s,e}$ are the volume flows of gas through the segments b,d,c,e, measured in m^3 /h; $m_{i,b}$, $m_{i,d}$, $m_{i,c}$, $m_{i,e}$ are the volume flows of liquid through the segments b,d,c,e, measured in m^3/h, and the exponent C is obtained as operating-pressure-dependent variable from the empirically determined function shown in Fig. 3, and the cal- culated ratios A'_b/A'_d and A'_c/A'_e deviate from the corresponding, actual ratios A_b/A_d and A_c/A_e by not more than 30%, preferably not more than 20%.

6. A dividing wall column as claimed in claim 1, where- in the operating pressure is

from 0.0005 to 0.02 bar and liquid distributors in which the liquid predistribution occurs by the bank-up principle and the downstream fine liquid distribution occurs by the capillary principle are used.

7. A dividing wall column as claimed in claim 1, wherein ordered packing having a cross-channel structure is used as separation-active internals.

8. A dividing wall column as claimed in claim 1, wherein ordered packing having a cross-channel structure is used as separation-active internals and the uppermost layer of packing below the liquid distributor is aligned so that the individual layers are aligned parallel to the dividing wall.

9. A process for isolating pure ethylhexyl p-methoxy- cinnamate by distillation using a dividing wall column as claimed in any of claims 1 to 8, wherein the feed mixture introduced comprises from 70 to 95%, preferably from 75 to 90%, of ethylhexyl p-methoxycinnamate as intermediate-boiling desired product.